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MEASURING THE EFFECTIVENESS OF ONLINE CLASSES DURING THE COVID-19 PANDEMIC: CASE STUDY OF A GOVERNMENT COLLEGE IN BANGLADESH

MEDICIÓN DE LA EFICACIA DE LAS CLASES ONLINE DURANTE LA PANDEMIA DEL COVID-19: ESTUDIO DE CASO DE UNA UNIVERSIDAD GUBERNAMENTAL EN BANGLADESH

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ABSTRACT

Due to the unprecedented appearance of COVID-19 students throughout the world experienced a significant educational interruption. To minimize the impact of the corona pandemic on educational activities many schools moved their face-to-face classes into online modes during the Covid-19 situation. Although online classes have been introduced instead of face-to-face classes aimed at reducing the educational losses of students, several studies have shown that students feel discomforted and annoyed with the way they learn online and faced several types of challenges. In Bangladesh, many researchers conducted research for exploring the conditions, benefits, and difficulties of online classroom during the COVID-19 pandemic, but all pieces of research were accomplished from the viewpoint of public and private universities in Bangladesh. This study was conducted to explore the effectiveness of online classes during the COVID-19 period from the viewpoint of a government college. The respondents of this study were accounting undergraduate students at Moulvibazar Government Women's

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College (MGWC) and data were collected through an online questionnaire survey. This study found that most students recognize online lectures during the corona pandemic as effective and fruitful considering pandemic conditions but in a normal situation, most of the students prefer traditional face-to-face classes over online classes.

KEYWORDS
COVID-19, traditional class, online class, government college, shutdown, effectiveness

RESUMEN
Debido a la aparición sin precedentes del COVID-19, los estudiantes de todo el mundo experimentaron una importante interrupción educativa. Para minimizar el impacto de la pandemia en las actividades educativas, muchas escuelas trasladaron sus clases presenciales a modos en línea durante la situación de Covid-19. Aunque se han introducido clases en línea en lugar de clases presenciales con el objetivo de reducir las pérdidas educativas de los estudiantes, varios estudios han demostrado que los estudiantes se sienten incómodos y molestos con la forma en que aprenden en línea y enfrentan varios tipos de desafíos. En Bangladesh, muchos investigadores realizaron investigaciones para explorar las condiciones, los beneficios y las dificultades del aula en línea durante la pandemia de COVID-19, pero todas las investigaciones se realizaron desde el punto de vista de las universidades públicas y privadas de Bangladesh. Este estudio se realizó para explorar la efectividad de las clases en línea durante el período de COVID-19, desde el punto de vista de una universidad gubernamental. Los encuestados de este estudio eran estudiantes de pregrado de contabilidad en Moulvibazar Government Women's College (MGWC) y los datos se recopilaron a través de una encuesta en línea. Este estudio encontró que la mayoría de los estudiantes reconocen que las conferencias en línea durante la pandemia son efectivas y fructíferas, considerando las condiciones de la pandemia, pero en una situación normal, la mayoría de los estudiantes prefieren las clases presenciales tradicionales a las clases en línea.

PALABRAS CLAVE
COVID-19, clase tradicional, clase en línea, universidad pública, cierre, efectividad

INTRODUCTION

The unforeseen rapid appearance of the Covid-19 virus has caused a number of challenges around the world. People encountered challenges in almost all areas including education, economy, manufacturing, and business and people around the universe are in search of the quickest retrieval from the Covid-19 pandemic. Though this corona pandemic has impacted almost all sectors, the education sector probably is one of the most affected. Governments around the world have enacted various policies for preventing the spread of coronavirus, and

people had adhered to maintaining social distance and isolation. Such undesirable circumstances force citizens to stay, work, worship, and study at home (Jamaluddin et al. 2020). For preventing the transmission of contagious coronavirus, all educational institutions including schools, madrasahs, colleges, and universities in Bangladesh, have been closed since March 17, 2020 (Hamid et al., 2020) and the Bangladesh government advised all education institutes to implement virtual education to keep the students engaged with their studies at the time of long shutdown. The unlimited closure notice of schools, colleges, and universities stopped direct face-to-face education in Bangladesh until September 12, 2021, which affected around 39 million students (UNESCO, 2020) directly or indirectly. Considering the enormous advantages of online classes during the corona pandemic, and to keep the educational activities running in line with the government's guidelines, the accounting department at the MGWC regularly conducted online classes.

This study is significant from the viewpoint of government colleges of Bangladesh for many reasons. First, this unforeseen closing of schools, colleges, and universities shifted the traditional classes to an online mode when most government colleges were not at least prepared to implement online classes. These unexpected experiences of students and instructors will help as an input to the more organized, easier, and more fruitful online education in the future. Secondly, even if the transmission of Covid-19 infections can be restricted in upcoming days, corona re-infection may happen again. Therefore, the continuity of online lectures blended with regular face-to-face lectures may become a common practice in the future. In this situation, educational institutions need to be prepared to shift many courses content to online platforms and make necessary modifications to the course structure and curriculum. The current research may assist stakeholders of the government colleges of Bangladesh to be aware of the effectiveness of online learning and explore the user-friendliness, potential, and barriers to implement future online classes.

OBJECTIVE OF THE STUDY

The primary goal of this research is to evaluate the effectiveness of online accounting lectures during the Covid-19 pandemic. This effectiveness is investigated based on students' responses to 15 questionnaire items perceived as the main variables of assessing students' level of satisfaction and preference with online classes. This study is based on the idea that the higher the level of student satisfaction, the higher the level of effectiveness of online classes. To achieve the research goal, the researcher attempted to investigate the following two questions:

How satisfied are students with online accounting lectures in the period of Covid-19 pandemic?

In general, do students prefer online classes to traditional face-to-face classes?

LITERATURE REVIEW

Online learning was implemented as the single response to the educational crisis in the Covid-19 situations (Basilaia et al., 2020) and for this reason, several pieces of research (e.g., ; Azhari and Kourniawati, 2021; Al-Salman and Haider,

2021; Mpungose, 2021; Mahbub, 2021, etc.) were conducted to explore the Effectiveness of online classes, student attitudes toward online classes, advantages, and drawbacks. Few earlier and recent studies (e.g., Zhang et al., 2006; Smedley, 2010; Mastilak, 2012; Alzawarneh, 2020, etc.) have drawn the positive effects of online classes while others (e.g., Jamaluddin et al., 2020; Mukhlasin and Pasribu, 2021, etc.) pointed out numerous limitations. Zhang et. al., (2006) argues that online class allows students to watch each activity and listen to the tutor as many times as essential. Amer (2007) states that online education increases satisfaction and reduces stress among learners and instructors, Smedley (2010) claims that online learning offers more personalization of time and place of delivery, and Mastilak (2012) focuses on the opportunity of sharing the lecture materials and easier interaction between learners and instructor as the significant advantages of online education. On the other hand, Jamaluddin et al., (2020) argue that online lectures have self-limitations, drawbacks, and complications. For instance, online classes are likely to be less satisfactory in terms of learning outcomes because the materials understood in online classes are less than in traditional physical classes (Mukhlasin & Pasaribu, 2021) and learners in virtual classes are worse supervised as compared to face-to-face classes (Ilmadi et al, 2020).

Cautious instructional design & planning (Hodges, et al., 2020) and adequate knowledge of the users (Tarhini et al., 2017) have been considered as the prerequisites for effective online learning. Appropriate application of technologies allows instructors and learners to mutually interact and collaborate (Gonzalez et al., 2020), therefore, it is vital to make a comprehensive study of the relevant issues to ensure the best use and acceptance of technology. Moreover, the perceptions of users need to be recognized to increase the effectiveness of online learning. Research studies have shown both positive and negative perceptions by students, and many researchers have detected issues that have a significant effect on students' perceptions of online classrooms, such as consistency in course design (Swan et al. 2000), ability to think critically (Hay et al. ., 2004), flexibility and social presence (Kim et al., 2005), the likelihood of collaboration among peers (Wise et al., 2004), self-perception of learning content (Lim et al., 2007), access to modern educational technology (Sun and Chen, 2016), and feedback from teachers with clear guidance (Gilbert, 2015).

Several research studies (e.g., Alamri & Tyler, 2016; Ikhsan et. al., 2019; Gray and DiLoreto, 2016, etc.) were conducted to demonstrate the comparative efficiency of traditional face-to-face classrooms and online classrooms. These studies reported dissimilar results that needed to be re-studied. In addition, a number of researchers have conducted research to investigate the students' perceptions and satisfaction with face-to-face classes and online classes. Tratnik (2017) found major differences in the level of satisfaction between students who take online courses and who take face-to-face courses. Tratnik (2017) claims that those who took face-to-face courses are more satisfied than that those who took online courses. In contrast, Bernard et al., (2014) argue that online student performance is much better than traditional face-to-face education systems and online education is more flexible than offline education (Baber, 2020). However, Nguyen (2015) argues that there is no difference in students’ satisfaction levels if online classes are properly planned. In this period of innovation and technology, the online education system is undoubtedly bringing revolutionary transformations in the field of education and the significance of online education

is rising rapidly; but there are several pieces of research that identified a lot of limitations in the online education system and prioritized face-to-face education systems. Therefore, further study is needed to accept online classes instead of direct face-to-face classes.

RESEARCH METHODOLOGY

The data for this study was gathered using an online questionnaire survey. The respondents to the questionnaire survey were undergraduate accounting students at the College under study. A Google form online survey questionnaire was created, and the link to it was sent to prospective respondents. Although it has some drawbacks, such as a low response rate and non-visibility, an online survey was deemed the most effective way to conduct this study's survey due to its efficiency in terms of time and money, ability to maintain data standards, and ability to protect participants' privacy (Buchanan, 1981).

Sampling and Data Collection

A list of first-year, second year, and third-year undergraduate accounting students was collected from the college admission office. Since the fourth-year students did not participate in any online sessions during Covid-19 period, they were automatically excluded from the study. After acquiring student lists from the admission office, the researcher identified students whose contact information (e.g., phone number, What's App number, messenger ID, or email address) was available in the department admission office. There were 109 pupils whose phone numbers and email addresses were on the student lists. The remaining pupils were not included in the survey because there was no way to contact them. The researcher then contacted each one of the 109 students through phone, message, email, and What's App and encouraged them to answer the questionnaire survey sincerely. Finally, within the allotted time, 42 students completed the survey questionnaire. The researcher deemed it to be a satisfactory response rate (42 out of 109) considering the pandemic situation and the remoteness of the participants.

Questionnaire and measures

A two-part online survey questionnaire was created; part-1 was used to gather demographic information from the respondents, while part-2 had 15 closed-ended questions designed to elicit responses from students about 15 survey items related to online classes during Covid-19 pandemic. In the online questionnaire, all the survey items were evaluated with a 5-point Likert scale, with the options being Strongly Agree (SA=5), Agree (A=4), Neutral (N=3), Disagree (D=2), and Strongly Disagree (SD=1). Among the 15 questionnaire items first 12 items such as interaction, student engagement, autonomous learning, just-in-time teaching, learning motivation, clear doubts, communication skill, critical thinking, less cost, reducing disruption effect, breaking Covid1-9 transmission chain, and Online class continuation are dedicated/linked to measure the students' level of satisfaction with online accounting classes during Covid-19 period. The last three survey items such as conveniency, sustainable attention, and preference (question 13-15) are dedicated to measure the students' level of preference with online classes over traditional classes. The

effectiveness of online accounting classes during Covid-19 was evaluated based on the level of satisfaction and level of students' preference with online classes.

Data analysis and presentation

Data collected through online questionnaire was processed and analyzed using SPSS statistical program. The processed data was then presented as mean, standard deviation, and percentage (%) of opinions/replies and had been used to answer the two research questions. Higher mean scores and higher (%) agreement with survey statements are interpreted as indicators of higher levels of satisfaction and effectiveness of online classes. Following the two research questions, the meanings extracted from the processed data were stated in a descriptive story format.

Data Validity and Reliability:

Bivariate correlations and a Cronbach's alpha test have been conducted using the SPSS program to assess the validity of the questionnaire and the reliability of the data acquired by the questionnaire.

Reliability Statistics	
Cronbach's Alpha	N of Items
0.839	15

Cronbach Alpha for all 15 questions is 0.839, which exceeds the standard value for Cronbach Alpha (0.7), hence it can be concluded that all questionnaire items are reliable. The bivariate correlations coefficients for all questionnaire items are as follows:

Table 1. Obtained Pearson correlation coefficients and critical value at 40 DF (.05 level)

Survey questions (items)	**Pearson Correlations**		
	DF=N-2 =42-2	Obtained Correlation Coefficients	Critical Value at 40 DF (.05 level)
Q1	40	.527	.3044
Q2		.550	
Q3		.358	
Q4		.724	
Q5		.648	
Q6		.492	
Q7		.589	
Q8		.566	
Q9		.506	
Q10		.385	
Q11		.421	
Q12		.614	
Q13		.667	
Q14		.721	
Q15		.632	

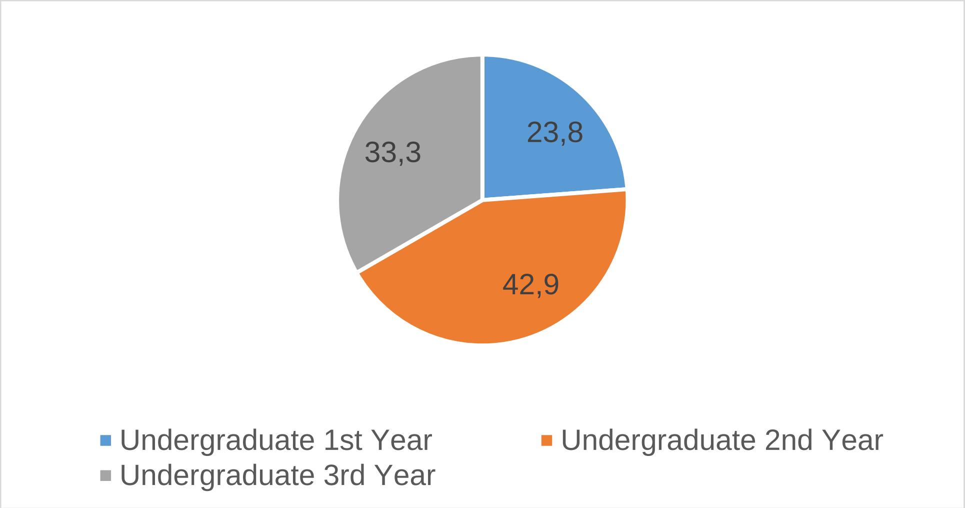
The data presented in the table above demonstrates that the obtained Pearson correlation coefficients for survey item Q1 through Q15 are higher than the minimum acceptable value (.3044) of Pearson correlation, which is set at 40 DF (.05 level). Therefore, all the survey questions can be considered valid.

RESULTS & DISCUSSION

Demographic Information

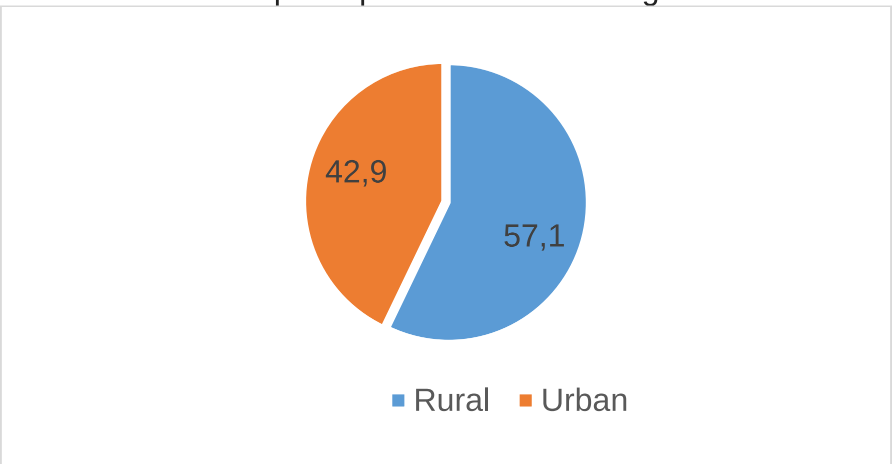
23.8% of the participants (10 out of 42) were undergraduate accounting students in their first year, 42.9% of the participants (18 out of 42) were accounting students in their second year, and 33.3% of the participants (14 out of 42) were accounting students in their third year at the studied college.

Figure 1. Distribution of participants based on academic year.



According to their place of residence, 57.1% of the respondents come from rural areas (24 out of 42), whereas 42.9% of the respondents come from urban areas (18 out of 42).

Figure 2. Distribution of participants based on living area



Test of Independence

A nonparametric Kruskal-Wallis-Test was done to check whether or not the Academic Year of the respondents affects the survey items.

Kruskal Wallis Test Statistics
Grouping Variables: Academic Year

Survey items	Asymp. Sig.
1.Interaction between Teacher and Students	0.182
2.Student engagement	0.411
3. Autonomous learning	0.541
4. Just-in-time teaching	0.212
5. Learning motivation	0.049
6. Clear doubts	0.086
7. Communication and expression skills	0.365
8. Critical thinking	0.333
9. Less costly	0.326
10. Reduced the disruption effect	0.102
11. Breaking the Covid-19 transmission chain	0.183
12. Online classes should be continued	0.001
13. Convenient than traditional classroom	0.026
14. Sustainable attention and interest	0.127
15. I prefer online classes	0.002

The obtained Asymptotic Significance values of four survey items, including item 5 (Learning motivation), item 12 (Online classes should be continued), item 13 (Convenient than traditional classroom), and item 15 (I prefer online classes), are less than the permissible value (.05), indicating that the status of academic years significantly influences the mean scores of these four survey items. The status of the academic year doesn't have much of an effect on the other eleven survey items because their asymptotic significance values are higher than the allowed value (.05).

Furthermore, a Man-Whitney U test was performed to determine whether or not the residential area of living affects the survey items.

Mann-Whitney U Test Statistics
Grouping Variables: Home/Residence Area

Survey items	Asymp. Sig.
1.Interaction between Teacher and Students	0.571
2.Student engagement	0.978
3. Autonomous learning	0.590
4. Just-in-time teaching	0.380
5. Learning motivation	0.213
6. Clear doubts	0.831
7. Communication and expression skills	0.684
8. Critical thinking	0.175
9. Less costly	0.926
10. Reduced the disruption effect	0.445
11. Breaking the Covid-19 transmission chain	0.966
12. Online classes should be continued	0.812
13. Convenient than traditional classroom	0.035
14. Sustainable attention and interest	0.505
15. I prefer online classes	0.895

The test results show that respondents' area of living has a significant influence on item 13 (Convenient than traditional classroom), which has a lower test value (0.035) than the acceptable limit of 0.05. The area of residence of the students has no effect on any other survey item.

Level of students' satisfaction (Research question one)

The 1st research question of the current research is- How satisfied are students with online accounting lectures in the period of Covid-19 pandemic? This is the main question of this research because the level of satisfaction with the online class indicates the level of effectiveness of the online class. To respond to question one and measure the satisfaction levels with the online lectures during the Covid-19, this study used the data obtained through survey items 1-12.

Table 2. Level of Students' satisfaction about online classes during the Covid-19.

No.	Survey item	Mean Score	Std. Deviation	% Agreed (4 to 5)	% Disagreed (2 to 1)
1	Online class during Covid-19 improves the interaction between Teachers & Students	4.07	0.84	73.8	2.4
2	Online class during the Covid-19 promotes student participation in-class activities	3.76	0.98	71.4	9.6
3	Online class during the Covid-19 promotes independent and personalized learning	3.69	1.09	71.5	14.2
4	Online class during the Covid-19 guarantees just-in-time teaching	3.76	1.12	66.7	14.3
5	Online lectures during the Covid-19 increases learning motivations	3.69	1.14	61.9	11.9

6	Online class during the Covid-19 allows students to ask questions during class	3.88	1.13	69	12
7	Online class during the Covid-19 improves students' communication skills	3.90	1.03	81	11.9
8	Online class during the Covid-19 promotes students' critical thinking capability	3.57	0.99	54.8	9.6
9	Attending online classes is less costly than the traditional class	3.36	1.25	57.2	28.5
10	Online class during Covid-19 reduces the disruption effect on Education	3.90	0.82	78.5	4.8
11	Online class during the Covid-19 is effective in breaking the coronavirus transmission chain	4.02	0.90	83.3	7.2
12	I would like to attend online classes even after the Covid-19 pandemic	2.93	1.28	40.5	47.6

Collected survey data showed that 73.8% of participants believe that online lectures have enhanced teacher-student interaction during the Covid-19 period, 71.4% of respondents recognized that online lectures allow students to engage in in-class activities and more than 71% of respondents confirmed that online lectures promote self-directed learning. More than 66% confirmed that just-in-time teaching can be ensured in online classes, 61.9% agree with the statement that online lectures improve learning motivations, 69% of students replied that they had the opportunity to ask questions in online classes and about 81% admit that online classes can enhance expression and communication skills, 54.8% agreeing that online lectures may develop the ability to think critically, and 57.2% of students find online classes to be less expensive than traditional classes. Also, 78.5% of students opined that online class reduced the impact of Covid-19 disruption, above 83% of respondents consider online lectures effective in restricting the Covid-19 infections, and about 40% of participants approved that online class should be continued even after the Covid-19 situation. In addition, table 2 demonstrates that Survey item 1 (interaction between Teachers & Students) yields the largest mean score (4.07), with a standard deviation of 0.84, while survey item 12 (attending online classes even after the Covid-19 period) yields the lowest mean value (2.93), with a standard deviation of 1.28. Among remaining survey items, item 11 gives a mean score of 4.02 with 0.90 standard deviations, item 10 produces a mean score of 3.90 with 0.82 standard deviations, and item 7 produces a mean score of 3.90 with 1.03 standard deviations. Table 2 clearly demonstrates that the mean scores of all satisfaction related items are greater than the median value (3), with the exception of item 12, which gives a mean score that is less than the median value (3).

These higher mean scores indicate that students are generally satisfied with online classes during the Covid-19 pandemic period but majority of them prefer to attend face-to-face classes rather than online classes after the Covid-19 pandemic. Most of the participants found online classes to be effective during the absence of traditional face-to-face lectures, as students were facing huge educational losses during the Covid-19 pandemic. A huge gap in the learning process can make the students deeply frustrated but the implementation of online classes was keeping the students engaged in the academic functions and kept away the frustration. The survey results demonstrate that most students think that

the implementation of online classes has played an optimistic role in lessening the impact of COVID-19 on students' learning process by keeping the students encouraged and engaged with the learning process in the pandemic situation. In addition, students' health issues in the Covid-19 situation were a major concern for parents and authorities. The current study recommends that online classes are significantly more effective in restricting the Covid-19 transmissions, and this finding was in line with findings of the study conducted by Ilmadi et al. al., (2020). Considering health issues, Ahmed and Mansyur (2021) also recognized the effectiveness of online classes during the Covid-19 pandemic. Furthermore, most respondents admit that online classes incur fewer costs, and this may be due to the lower transportation costs and accommodation costs in the online classroom environment. This study further demonstrates the constructive roles of online classes in encouraging autonomous learning that allows students to conduct self-directing learning activities. Peine et al. (2016) also showed in their study that self-directed education is more effective than traditional face-to-face learning.

Assessing the students' preference level (Research question Two)

The 2nd question of this study is- In general, do students prefer online classes to traditional face-to-face classes?

The survey items 13-15 were dedicated to answering question number two. Data relevant to question number two illustrate the actual situation of the level of students' preferences between direct physical classrooms and virtual classrooms. Survey item 13 sought to find out whether the traditional direct class or online class was convenient for the students, item 14 asked about the effectiveness of online classes in retaining students' attention to class and item-15 asked about whether students would prefer online classes or offline classes under normal circumstances. The results obtained from the survey items 13-15 are displayed in the table below.

Table 3. Level of preferences for online classes vs face-to-face classes.

No	Statements	Mean Score	Std. Deviation	% Agreed (4 to 5)	% Disagreed (2 to 1)
13	Online lectures are more convenient/suitable than direct face-to-face lectures	2.86	1.372	33.3	52.4
14	Online lectures guarantee sustainable attention and interest	2.88	1.383	42.9	45.2
15	Online lectures are preferable rather than face-to-face lectures	2.45	1.292	23.8	61.9

The table above shows that only 33.3% of participants agreed with the statement that online classes are more convenient/suitable than face-to-face classrooms, and around 43% of participants confirm that their sustainable attention remains intact even in online classes. The current survey also attempted to explore whether learners favor direct face-to-face classes or online classes in a pandemic-free normal situation, where about 62% of respondents voted for traditional face-to-face classes. All three items assigned to research question two, namely items 13, 14, and 15, produce mean scores of 2.86, 2.88, and 2.45, respectively, which are lower than the median value (3). This indicates that most pupils have a higher level of preference for direct physical classrooms than

online/virtual classes, and this finding is similar to some other studies such as Tratnik and. al., 2019; Jasmine and Felicia, 2019; Zoo and Jaggers, 2016; Columbaro & Monaghan, 2009; Conole et al., 2008; and Nenagh & Rachel, 2014. Xu and Jaggars (2016) claim that direct face-to-face classes have numerous advantages that are not found in online classes. According to Nenagh & Rachel (2014), students feel more engaged and get immediate feedback in direct face-to-face classrooms, hence, they prefer traditional classrooms over online classrooms.

The extracts from research question two led to the conclusion that, in general, students prefer traditional classrooms over online classrooms. Although the finding of the research question one indicates that most students were satisfied and found online classes effective, this may be considering the situation of long closures of traditional direct classes during the Covid-19 situation. Because 78.5% of students believe that online classes reduced the disruption effect on learning. Therefore, it is rational to conclude that students have found online classes as an impermanent solution to resume their learning activities until direct face-to-face classes are resumed, not as an enduring replacement for direct face-to-face classrooms. This explanation is in line with the explanation given by Hodges et al. el., (2020). Hodges et al. el., (2020) concluded that online classes are an interchangeable and temporary alternative to face-to-face classes during the Covid-19 to cope with the pandemic situation. However, Awal (2022) concludes that instructors' teaching style and seriousness about the lectures also have an influence on students' level of preference. Teachers have more opportunities to demonstrate their unique teaching styles and seriousness in face-to-face classes than online classes.

CONCLUSION

This study concluded that most accounting students at the studied college believe that the implementation of online classrooms during the corona pandemic situation was a time-demanding initiative and helped the students to restart their learning process. The respondents believe that online lectures were effective since this online mode lets learners stay engaged in the learning process when all educational institutions were closed during the shutdown period. The majority of students were of the opinion that online classes were effective in breaking the Covid-19 transmission chain as well as reducing the impact of disruptions in the learning process, which had two main purposes of incorporating online classes around the world. The results of this study further conclude that under normal circumstances most students prefer traditional classrooms which involve direct face-to-face communication over online classrooms. However, this study was conducted within a limited time frame and the samples were selected from a single department in a single college. Moreover, the studied college was a women's college in Bangladesh hence the findings of this study may not represent the actual scenario of other government colleges in Bangladesh.

RECOMMENDATIONS

Based on the research findings, the researcher is intending to make few recommendations to help the stakeholders of Bangladesh education sector including the college authority.

- Government should take rapid steps to ensure special internet packages with possible minimum cost for students and teachers.
- College administration should arrange for required in-house training to increase the technical skills of the teachers and students to increase the effectiveness of online classes as well as to make them ready for any unforeseen challenges.
- Excessive workload (academic & nonacademic) is a major obstacle to Bangladeshi teachers for enhancing their skills and professional expertise (Awal, 2022). This workload should be reasonably reduced so that the teachers have enough time for preparing attractive online class materials.
- Government should arrange for a special internet allowance for the teachers to compensate the internet bill that the teachers incur from their own pockets.
- Government ought to declare special schemes for underprivileged learners to afford smart phones or laptops in the form of donations or easy loans.

LIMITATIONS

This study was conducted in an unusual circumstance in which direct human contact was not permitted, and data were collected using a Google form. Due to the closure of educational institutions, students were difficult to find, so subjects were chosen primarily using snowballing and convenience sampling methods. However, the snowball sampling method produces biased samples (Sulaiman et al., 2015) and convenience method does not guarantee sample representativeness (Ilker et. al., 2016). The current study was conducted from the perspective of a specialized government college for female students only. As a result, the findings of this study may not be applicable to other government colleges that accept both male and female students. Furthermore, the student respondents in this study were limited to the accounting discipline and a specific geographic area. As a result, the findings of this study may not be representative of students from other disciplines or from different geographic areas, because students from different disciplines and geographic areas face different challenges, socioeconomic conditions, and subject patterns. Cross-disciplinary studies with diverse representative groups are therefore recommended for a better outcome.

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